

REMARKS

Claims 1-5, and 8-9 are pending in the present application. Claim 1 was amended in this response. Claims 6-7 were canceled, without prejudice and were rewritten as new claims 8-9. No new matter has been introduced.

Claims 1-7 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Liu et al.* (US Patent No. 6,208,443) in view of *Kai et al.* (US Patent No 6,278,536) or *Fatehi* (US Patent 6,122,096). Applicant traverses these rejections. Favorable reconsideration is respectfully requested.

In light of the above amendments, Applicant submits that the present claims are allowable over the prior art. Specifically, none of the cited art, alone or in combination, disclose at least “a bandstop filter apparatus, having a first input connected to said first output of said branching coupler, and wherein said bandstop filter apparatus is tuned to a wavelength of a signal to be launched, so that an incoming optical signal having this wavelength is reflected, and incoming signals having all other wavelengths are passed at an output” and “a second optical coupler, coupled to the output of the bandstop filter apparatus, said second optical coupler further having an add input into which said outgoing signal to be launched is fed against its transmission direction, reflected, and added to said passed signals” as recited in claim 1 and claim 8. Additionally, *Liu* does not disclose “a further optical filter, connected to said second output of said branching coupler, via which an incoming optical signal is output” as recited in claims 1 and 8.

As was argued previously, *Liu* does not incorporate the use of branching couplers, but instead relies on the use of circulators serially disposed on the input and output of the filter (see col. 4, lines 21-29; col. 7, lines 2-15). Fiber optic circulators are unidirectional devices that direct an optical signal from one port to the next, in only one direction at a time. While the direction of the light may be redirected as needed, it must pass to and from ports sequentially (e.g., from port 1 to port 2 before traveling to port 3). Additionally, circulators are expensive and introduce attenuation and distortion to the optical signal. *Fatehi* does not solve the deficiencies of the *Liu* reference.

In contrast to the cited art, the branching couplers of the present invention divides a signal into two distinct parts. The second coupler (61) recited in the claims utilizes the output of

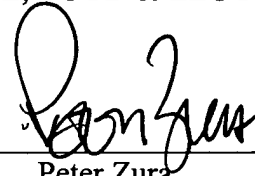
a grating (bandstop) filter to allow the signal to be input directly to the coupler/filter against the transmission direction. This configuration, along with the combination of the other recited features, are not taught in any of the cited art.

In light of the above amendments and arguments, Applicant respectfully submits that independent claims 1 and 8, and all claims that depend directly or indirectly therefrom, are allowable over the prior art. Applicant also requests that a timely Notice of Allowance be issued in this case. Should there be any charges regarding this application, the Examiner is hereby authorized to charge Deposit Account 02-1818 for any insufficiency of payment.

Respectfully submitted,

BELL, BOYD & LLOYD LLC

BY



Peter Zura

Reg. No. 48,196

P.O. Box 1135

Chicago, Illinois 60690-1135

Phone: (312) 807-4208

Dated: December 29, 2004